

PowerRIP[®]

Macintosh & Macintosh Power PC

Version 3.1

for

EPSON Stylus Color

EPSON Stylus Pro

EPSON Stylus Pro XL

**INSTALLATION & OPERATION
MANUAL**

Birmy

Birmy *PowerRIP*

*The Software Program That Turns EPSON Stylus
Into a True Adobe **PostScript™** Level 2 Imager*



Adobe PostScript

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Birmy Graphics Technical Support

For technical assistance with the installation, configuration and operation of the Birmy PowerRIP, please call Birmy Customer Support (407) 723-2893. The hours of operation are 9am-8pm EST

Please do not call the Birmy Fulfillment Center for technical information. There are no support personnel at that location; the phone number is for PowerRIP registration only.

Please refer to Troubleshooting, Chapter 4, before calling Customer Support. When calling for technical assistance, be ready to identify your system and its configuration, the serial number of your copy of PowerRIP, and a description of the problems you are encountering. It is highly recommended that you enable the Log Messages option when creating a PowerRIP printer. The entries in the log will help our support staff to identify PostScript error messages.

Birmy Graphics Corporation	Voice (407) 723-2893 F A X (407) 768-9669 Email Support@birmy.com
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INTRODUCTION & INSTALLATION

Birmy PowerRIP Chapter 1

The Birmy PowerRIP™ application is a software raster image processor (RIP) for the Macintosh computer. PowerRIP reads and interprets Adobe™ Level 2 PostScript™ and prints color raster images on imaging devices. Features include interpretation by the Adobe Configurable PostScript™ Interpreter (CPSI), print job spooling, support for multiple printers and multiple users, printer selection using the Chooser desk accessory, and job logging and saving. PANTONE® Calibrated support files are also included. Optional features include Open PrePress Interface (OPI) substitution and spoken error messages.

Operational Overview

PowerRIP works on a stand-alone Macintosh or a non-dedicated or dedicated Macintosh PowerRIP server if more than one Macintosh is to access PowerRIP. The imaging device is connected to the PowerRIP server, and at least one PowerRIP printer is defined for the imaging device. The PowerRIP server is the Macintosh running the PowerRIP application.

To print to an EPSON Stylus managed by PowerRIP, you must first launch PowerRIP and create and open at least one PowerRIP printer.

Once opened, the PowerRIP printer appears as a PSPrinter in the Chooser dialog displayed on a PowerRIP client. A PowerRIP client can be any Macintosh networked to the PowerRIP server. You may select any PowerRIP printer in the Chooser list as the current printer. You can then print to the PowerRIP printer normally, simply by selecting the Print command in your application.

Ah PowerRIP printers are closed when PowerRIP quits. You must open the PowerRIP printer that you want after you start the PowerRIP application.

Printing from a PowerRIP server requires that you add a job file to the appropriate printer file. You can create a new job file by choosing the File destination option in the LaserWriter Print dialog and selecting the destination folder to be the jobs folder. Alternately, you can copy a previously saved job file to the jobs folder using the Finder. Never print directly to a PowerRIP printer from a PowerRIP server.

PANTONE® Color Support

PANTONE palette files are included in your PowerRIP package. These files can be read directly into PANTONE-licensed applications so the user will have calibrated versions of Pantone colors. User instructions are included on the PANTONE disk.

ColorSync™2.0 Support

Disk 5 of the installer disks contains the ICC profiles required by ColorSync 2.0. Use these profiles in applications that support ColorSynch 2.0. See page 13.

Optional Features

PowerRIP can be configured to speak critical messages using the optional Speech Recognition feature available from Apple™ Computer, Inc.

Installation Requirements

PowerRIP will run on any Macintosh computer with the following configuration:

- Macintosh Centris, Quadra, or PowerMac. For the Centris and Quadra, an FPU (Floating Point Unit) is strongly recommended.
- 12 inch diagonal monitor or larger (“Classic” monitor not supported).
- At least **12 MB of RAM (7.5 MB for PowerRIP, 4.5 MB for system, fonts, etc.)**. For optimal performance, at least 16 MB of RAM is highly recommended. Also, any memory requirements for optional software, e.g., OPI server, must be added to this total.

See page 29 for suggestions on increasing your available memory (RAM).

- At least 80 MB of disk space (6-7 MB required for installation). As the maximum number of files in the jobs folders increases, this disk space requirement increases. Furthermore, when “Faster Copies” is selected, rendered images will be spooled to disk, requiring even more disk space.
- System 7.0 or later (System 7.1 or later recommended).

Any Macintosh computer with the following minimum configuration can be a PowerRIP client:

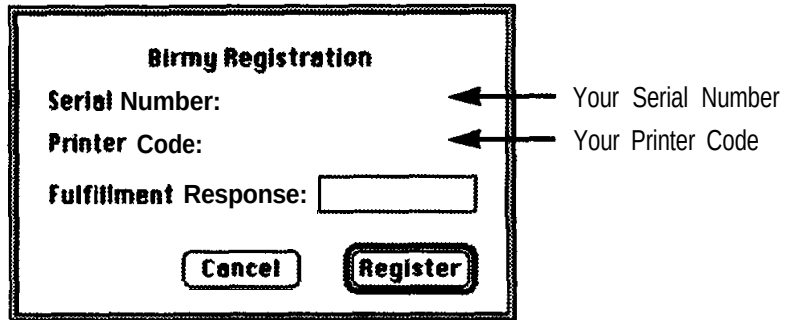
- System 6.5 or later (System 7.1 or later recommended).
- AppleTalk or Ethertalk network connection with the PowerRIP server.
- 8 MB of RAM to install PowerRIP Client software.

Note: If you have less than 8 MB of RAM you will have to manually insert the necessary files into the System Folder of this client Macintosh. First install PowerRIP on your server Macintosh. Then go into the server’s System Folder, the Extensions subfolder, and copy the Chooser Extension PSPrinter onto a diskette or directly, via your network, to the same location on the client Macintosh. You will also need to copy the PPDs (PostScript Printer Descriptions) which are located in the Printer Descriptions folder of the Extensions subfolder. The PPDs are named: Stylus Color (with Quark).PPD, Stylus Color.PPD, Stylus Pro (with Quark).PPD, Stylus Pro.PPD, Stylus Pro XL (with Quark).PPD, Stylus Pro XL.PPD. It is only necessary to copy the PPDs for the EPSON Stylus you are going to use. Put the appropriate PPDs into the Printer Descriptions folder of the Extensions subfolder on the client Macintosh.

Registering PowerRIP

PowerRIP must be registered before using. To register your copy of PowerRIP:

1. Insert the diskette labeled Key Disk.
2. Double click on the BirmyRegister icon and the following menu will appear.



3. Call the Birmy Fulfillment Center at 800-613-3031 (24 hours a day, seven days a week). You will be asked for your Serial Number, Printer Code, and the model of your Stylus. (Stylus Color, Stylus Pro, or Stylus Pro XL.)
4. The Fulfillment Center will give you the required response number. Type that number in the Fulfillment Response box on the Birmy Registration menu. Before clicking on Register, record the number for future use. Fulfillment Response: _ _ _ _ _.

Quick Start (for stand-alone or server Macintosh computers)

Make backup copies of all installation disks

Connecting Stylus To Your Mac Via Serial Port

Install your Stylus per the manufacturer's instructions. Your EPSON Stylus should be plugged into the printer port if you have a stand-alone Macintosh. You will have to disable LocalTalk in this case. To disable LocalTalk, go to the Network Control Panel and select Remote Only.

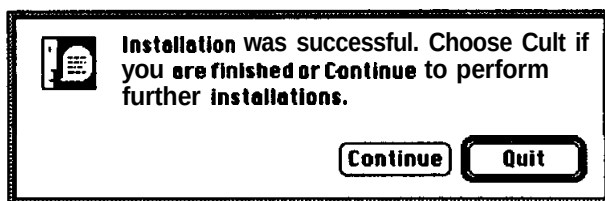
If you have multiple Mats that are on an AppleTalk network, your EPSON Stylus must be plugged into the modem port. If you are using modem software, it must be disabled.

Connecting Stylus To Your Mac Via EPSON's Optional AppleTalk/Ethertalk Interface Card

Follow the instructions in the EPSON User's Guide for installation, networking and naming your printer.

Install PowerRIP

1. If you have an anti-virus utility, temporarily disable it. You do this by holding down the Shift key while you restart your Macintosh.
2. Insert **Disk 1** and double click on the PowerRIP installer.
3. Click on **Continue**.
4. Click on **Install** for default installation.
5. Click on **Install** to install in the PowerRIP 3.1 folder on your hard disk.
6. Follow the screen prompts for inserting **Disk 2** through **Disk 4**, and then **Disk 1** again. You will get the following message.



7. Click on Quit, eject Disk 1, and reboot your Macintosh.

Note: If your EPSON Stylus is connected to the serial port and you are running System 7.5.1, or earlier, it is suggested that you update your serial driver. See page 12, item 10 for details.

Launching PowerRIP

1. **Open** the PowerRIP 3.1 folder on your hard drive and double click on the **PowerRIP** icon to launch the application and open the PowerRIP Control Panel.
2. Under **File**, select a **New Printer** and select the model of your EPSON Stylus printer. If you have installed EPSON'S optional AppleTalk/Ethertalk card, select the model designated (AppleTalk). See the screen examples **on pages 35 and 36** for sample Stylus Setup and naming printer queue folders.
3. To select the proper PPD (PostScript Printer Description), open the Chooser (under **Apple**) and click on the **PSPrinter** icon. The printer you named (printer queue) will be displayed in the right column. Highlight the printer name and make AppleTalk **Active** (button on bottom of Chooser window). Click on **Setup...**, then on **More Choices**. Do not click on Auto Setup. On next menu click on Select PPD. Scroll down, if necessary, to PPDs for Stylus printers (Stylus **Color.PPD** through Stylus **Pro.PPD** Highlight the one that corresponds to your Stylus and click on **Select**, then click **OK** on the next menu. Close the Chooser by clicking on the upper left box.

Using PowerRIP With Your Desktop Applications

1. If your Mac has sufficient RAM, you may keep PowerRIP open in the background while you work in other applications. If you don't have enough RAM (your Mac will tell you so), you must quit **PowerRIP**.
2. When setting up your documents, be sure to consider the printable area of your Epson Stylus. Minimum margins can be viewed in Page Setup menus.
3. You cannot print directly to PowerRIP unless you have multiple networked Mats. Instead you must create a PostScript file (save to disk), an option available in all PostScript applications. PostScript files should be saved to the printer queue folder you created inside the PowerRIP 3.1 folder. If you saved the PostScript file to some other destination, you can drag and drop it into the proper printer queue folder. Don't save jobs to the Printed Jobs folder inside the printer queue; jobs reside there after they have printed.
4. When you print a job and PowerRIP is open in the background, your job will start processing as soon as it gets to the printer queue. If you had to quit PowerRIP because of low memory, use the following instructions: After the PostScript file has been sent to the printer queue, quit the application, launch PowerRIP, and open the printer you previously created (under **File** at top select **Open Printer-open** the printer queue folder and double click on the printer icon). Your job will process and print after the printer starts your job.

Quick Start (for networked Mats)

Installing PowerRIP on Client Macintosh Computers

Any networked Macintosh can be used as a client. See note on page 2 if you have less than 8 MB of RAM.

1. Insert **Disk 1** and double click on installer icon.
2. Click on **Continue**.
3. Click on **Custom**, then highlight PowerRIP **3.1 Client** and click on **Install**.
4. Follow the prompts to insert **Disk 2** through **Disk 4**, and then **Disk 1** again.
When the installation is complete, click OK and eject Disk 1.

Printing To PowerRIP Server From Client Mats

A Client is any Macintosh connected to the Server Macintosh via AppleTalk or Ethertalk. When the PowerRIP Control Panel and a printer are open on a server Mac, you will see the name of your printer in the Chooser of a client Mac. Select the proper PPD as in previous instructions and print directly to the printer; there is no need to create a PostScript file.

Application Menus (stand-alone and server Mac)

QuarkXPress® Page Setup for “Epson Stylus” Print Queue

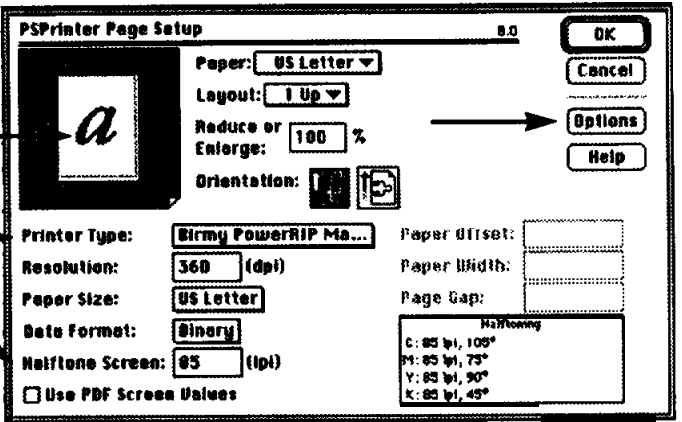
Quark Page Setup..

Click here to view margins

Printer Type
Select the proper PPD

Halftone screen (does not apply)
Leave it however it comes up

You may have color options in
in your Quark setup (Click none)

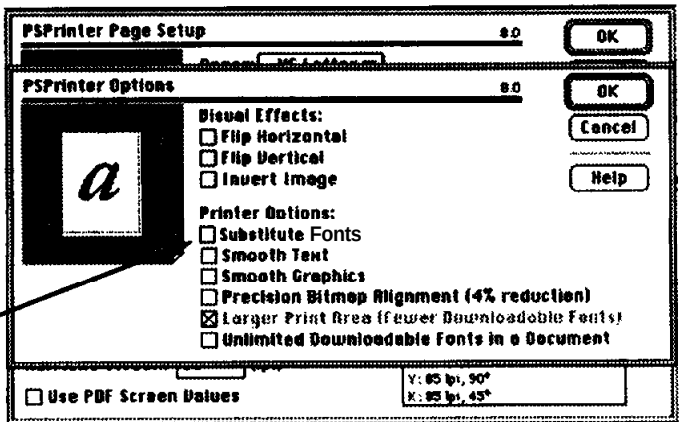


Quark Page Setup Options

Click on Options in above menu

De-select Substitute Fonts
to download fonts with file

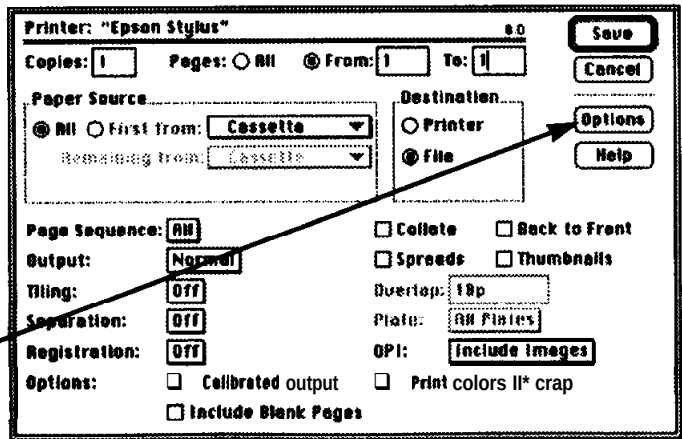
Click on OK



Quark Print Menu

Destination
Select File

Click on Options



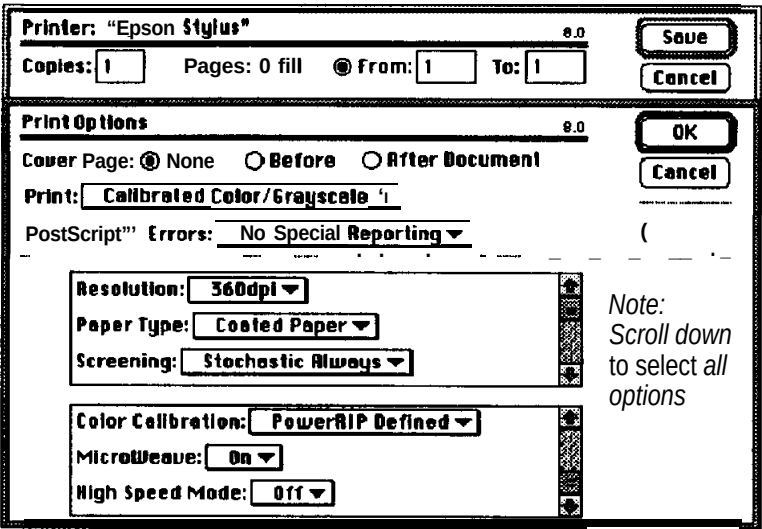
Print Menu (Options)
Most Applications

Me: To get this menu in PageMaker 5 hold down the Opt/on key before pulling down F/l/e and selecting Print.

Optimum settings for 360 dpi output on coated paper are shown

See page 9 for explanation of options in this menu

Click on OK then on Save



Creating PostScript File (Most Applications)

Navigate to Printer Queue
(See page 4, launching PowerRIP, item 2)

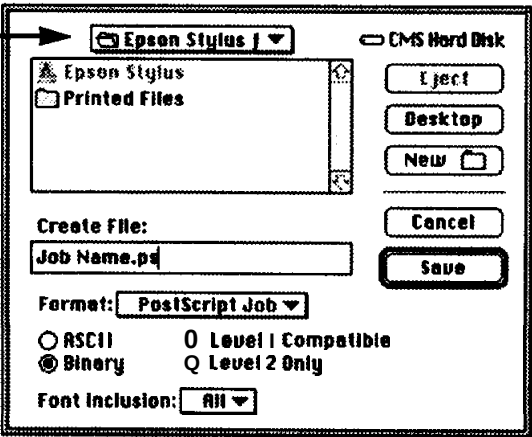
Name of job t .ps
(Use alphanumeric characters, i.e. abc123 and period)

Format: PostScript Job

Select Binary and Level 2 Only

Select All

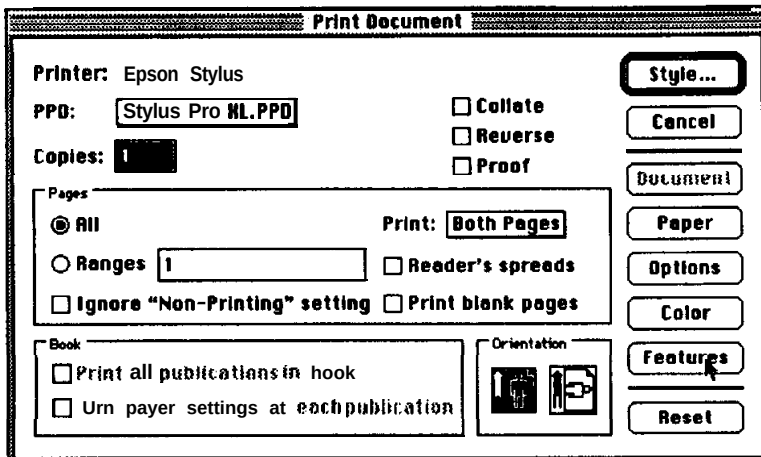
Click on Save



The PostScript file will be written to the Printer Queue. If PowerRIP is open in the background, the job will start to process and print. If PowerRIP is not open, double click on the PowerRIP icon in the PowerRIP 3.1 folder. When the PowerRIP Control Panel opens, select File... **Open Printer** and navigate to the Printer Queue folder (in this example, Epson Stylus). Double click on Epson Stylus; the job is processed and then the printer begins printing your file.

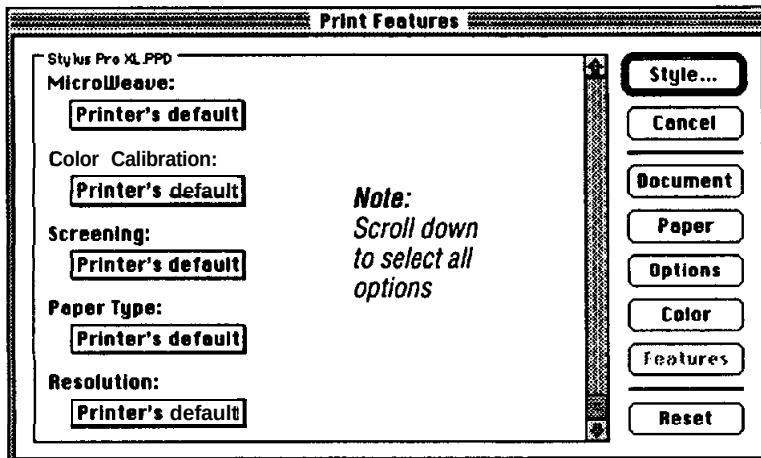
Adobe PageMaker 6 Print Document Menu

Click on Features to
display the printing options
for the EPSON Stylus



PageMaker 6 Print Features Menu

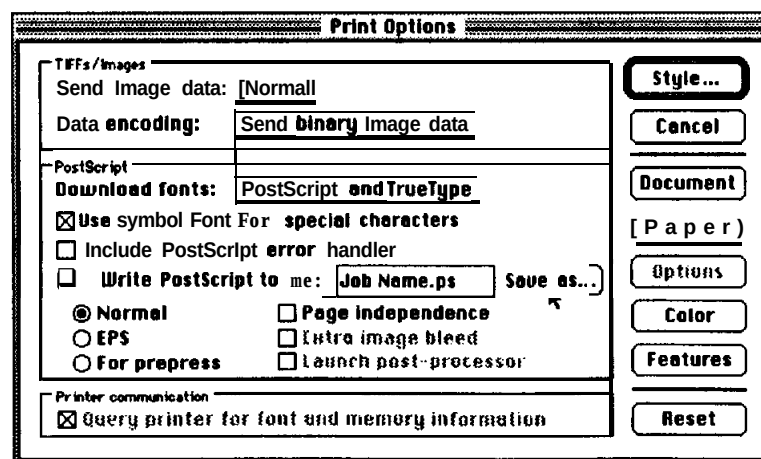
After selecting the desired
printing features, click on
Options to get the Print
Options Menu



Print Options Menu PageMaker 6

Sample menu for setting
up a PostScript file

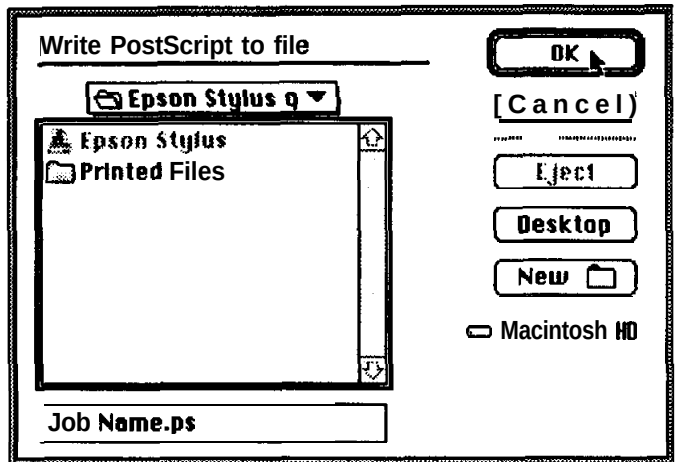
Click on Save as...



Write PostScript to file PageMaker 6

Navigate to Printer Queue
(See page 4, *Launching
PowerRIP, item 2*)

Click on OK to write PostScript
to the Printer Queue



The PostScript file will be written to the Printer Queue. If PowerRIP is open in the background, the job will start to process and print. If PowerRIP is not open, double click on the PowerRIP icon in the PowerRIP 3.1 folder. When the PowerRIP Control Panel opens, select **File... Open Printer** and navigate to the Printer Queue folder (in this example, Epson Stylus). Double click on **Epson Stylus**; the job is processed and then the printer begins printing your file.

Print Menu Options Definitions

Selectable items having special meaning in the Print Options menu are listed below:

Print	Black and White (Monochrome), Color/Grayscale, Calibrated Color/Grayscale.
Resolution	Printer's Default (360 dpi), 180 dpi, 360 dpi, 720 dpi. Resolution is a measure of the amount of detail that can be represented. Resolution of printed images is measured in the number of dots per inch (dpi). The higher the number, the finer the resolution. Lower resolutions print faster.
Paper Type	Printer's Default (Coated Paper), Plain Paper, Coated Paper, Glossy Paper, Transparency. Select the paper you are printing on. PowerRIP has Color Rendering Dictionaries to produce the maximum image quality for the individual Epson Special Paper stocks.

Screening	Printer's Default (Stochastic Always), Stochastic Always, Application's Default. Stochastic Screening is a random dot pattern as opposed to a fixed screen ruling. Stochastic Screen produces more tones and has better detail than fixed screen rulings.
Color Calibration	Printer's Default (PowerRIP Defined), PowerRIP Defined, Application Defined. Calibrated RGB references the I6 million possible shades of Red, Green and Blue combinations, commonly used in the computer industry, to a specific standard; CIE based ABC. Application Defined utilizes optional third party color calibration software.
MicroWeave	Printer's Default (On), On, Off. MicroWeave is a printing method in which images are printed in finer increments to reduce the possibility of banding (white lines) and produce laser-like images.
High Speed Mode	Printer's Default (OK), On, Off. When High-Speed Mode is on, the printer prints in bi-directional mode: it prints a line from right to left and on the next line left to right. High-Speed mode is faster but print quality is decreased when it is turned on.

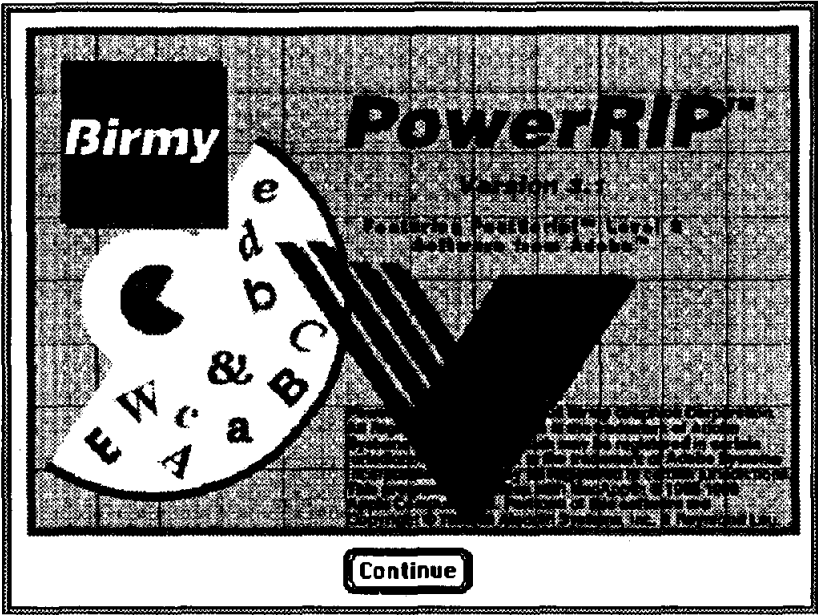
Step-by-Step PowerRIP Installation

Before installing PowerRIP, you should make backup copies of all the installation disks. There is no copy protection on the disks, so you may copy them using the Finder or any of several available utilities.

If your system does not meet the minimum hardware and software requirements previously listed, the program will not be installed successfully.

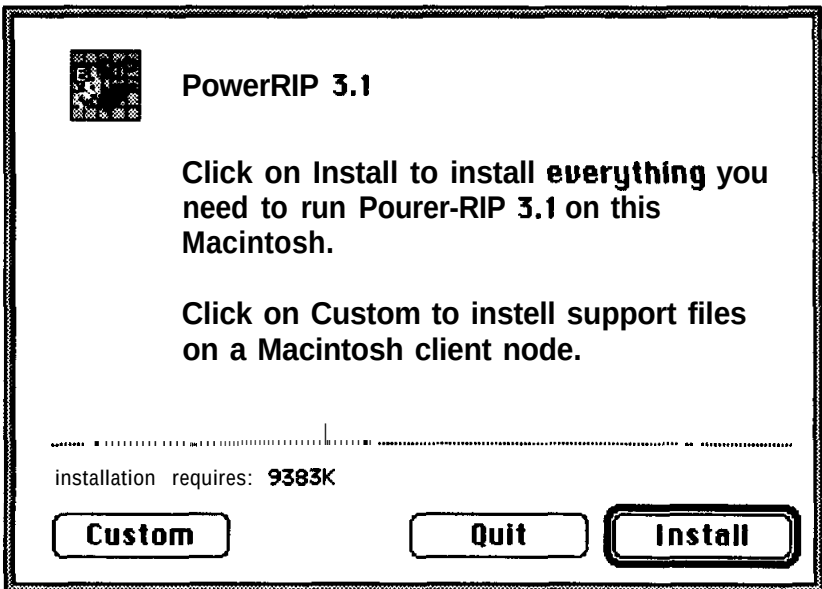
To install PowerRIP server, stand-alone or PowerRIP client, do the following:

1. Turn off all extensions by holding down the shift key while rebooting your Macintosh.
2. Insert the floppy disk labeled PowerRIP Installer Disk 1.
3. Double click on the PowerRIP installer icon. The PowerRIP installer starts, and the PowerRIP screen is displayed.



4. Click on Continue. The main installation window is displayed.
5. To do a default installation on a PowerRIP server or a stand-alone Macintosh, click on the Install button and go to step 7. The default installation will copy all files necessary to run Power-RIP as well as the PSPrinter PostScript printer driver, and PostScript Printer Descriptions (PPDs) for Epson supported PowerRIP devices.

To install fewer files than the default. click on the Custom button.



6. The custom installation window is now displayed with all installation options listed. **PowerRIP 3.1**, the default installation option, is highlighted.

If **you** select the **Minimum PowerRIP 3.1 Server** option, only those files necessary to run PowerRIP will be installed. PowerRIP client files to support printing from the PowerRIP server will not be copied.

In this case, you may also select/unselect additional options by holding down the Command key and clicking on the name of the option.

If you are installing the program on a PowerRIP client, you should choose only **the PowerRIP 3.1 client** option to install the PSPrinter PostScript printer driver and PostScript Printer Descriptions (PPDs) for Epson imaging devices supported by PowerRIP

When you have selected all appropriate options, click on Install.

7. A standard Save File dialog is now displayed requesting a name and location of a folder in which you would like folders and files to be installed. The default folder name is PowerRIP 3.1. Note that some folders and files are not copied to the specified folder but rather to the System Folder.

If you have selected **the PowerRIP 3.1 client** option, this dialog is skipped, since all files are copied to the System Folder.

8. Insert the other diskettes as requested by the installation program.
9. When the installation is complete, click on Quit or Continue. If your EPSON Stylus is plugged into the serial port, and your Macintosh is running System 7.5.1 or earlier, it is suggested that you update your serial driver.
10. If PowerRIP installation is being performed on a:
 - a. Macintosh 68040 other than an AV model, Power Macintosh 500 series, or Power Macintosh 100 series running System 7.5.2; click on **Quit**, eject Disk 1, and reboot your Macintosh.
 - b. Power Macintosh 100 series, Centris/Quadra 660AV, or Quadra 840AV, all running System 7.5.1 or less; click **on Continue**. On the next menu click **on Custom**. Highlight **SerialIDMA**, then click on **Install**. This places an updated serial driver, from Apple Computer, Inc., into the Extensions Folder. Follow the screen prompts for inserting **Disk 2** through **Disk 4**, and then Disk 1 again. You will get a message saying installation was successful. Click on **OK**, eject Disk 1, and reboot your Macintosh.

For a default **or PowerRIP 3.1 client** installation, the PSPrinter driver is copied to the System Extensions folder, and the PostScript Printer Description (PPD) files are copied to the Printer Descriptions subfolder of the System Extensions folder.

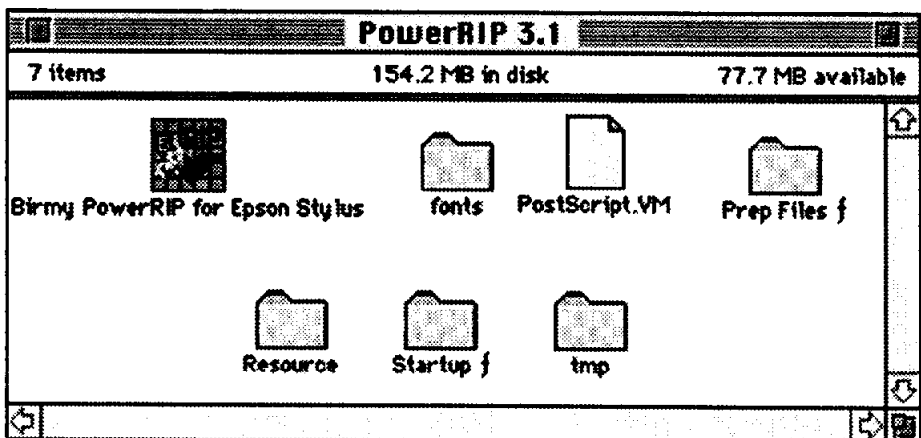
PSPrinter is a PostScript level 2 driver; it can be used in place of a LaserWriter driver version 8.0 or later. When printing to PowerRIP with a level 2 driver, you should first use the Chooser to select the PPD file matching the supported PowerRIP EPSON imaging device.

ColorSync™ 2.0

Disk 5 of the PowerRIP installation package contains the ICC profiles required by ColorSync 2.0. These profiles Should be placed in the Preferences sub-folder inside the System Folder. The profiles represent the Stylus Pro and Stylus Pro XL printers at 360 dpi on EPSON coated stock, 720 dpi on EPSON coated stock, and 720 dpi on EPSON high gloss stock.

When using these profiles with applications that support ColorSync 2.0, **choose** the Print Menu option ‘Application Defined” under Color Calibration. This gives the application the ability to convert RGB colors to a calibrated standard such as CIE **based** ABC. ColorSync 2.0 and the ICC profiles are designed to work with RGB colors and not CMYK colors. Files **saved as** CMYK colors as not affected by Color-Sync 2.0 and PowerRIP defined color calibration.

Note: PowerRIP must be registered before using. If you have not yet registered, see Registering PowerRIP on page 3. Do not insert the Key Disk when installing software on a PowerRIP client; registration is not necessary.



The following files and folders are copied to the PowerRIP 3.1 folder selected in Step 7 on page 12:

PowerRIP	This is the PowerRIP application file. Open or double-click on this file to launch PowerRIP
PostScript.VM	This file is required by the interpreter.
fonts	This folder contains a minimum set of PostScript fonts. It also contains a number of files with the extension '.upr'. These files point to all PostScript fonts in this folder, the System Folder, and any selected extra font folder. Important Note: If you move or rename the PowerRIP folder or the System Folder, you should remove all '.upr' files before restarting PowerRIP.
Prep Files <i>f</i>	This empty folder is required by the interpreter.
Resource	This folder contains special resources required by PowerRIP The ColorRendering subfolder contains color rendering dictionaries, the ProcSet subfolder contains special PostScript procedures, and the Resource.upr file contains pointers to all PostScript resources used by PowerRIP You should never modify the contents of this folder
Startup <i>f</i>	This folder contains PostScript startup files for EPSON imaging devices supported by PowerRIP You should never modify the contents of this folder except under the following expert mode circumstance. If your application or printer driver does not produce PostScript Level 2 color operators, you may still use CIEBasedABC color by editing the startup file corresponding to the imaging device and remove the leading % from the line % dup BGRedefineColor-Operators get exec. This change will cause Level 1 color operators to be mapped to Level 2 color operators; however, with some applications, incorrect output may be produced.
tmp	This folder contains some files and folders required by the interpreter. It is also used for temporary scratch files.

GETTING STARTED

Launching PowerRIP

This section describes how to run PowerRIP, create PowerRIP printers, print to the created PowerRIP printers, and reprint the last job. The PowerRIP Control Panel Window, the Printer Setup Dialog, and the PowerRIP Completed Jobs Window are described in detail.

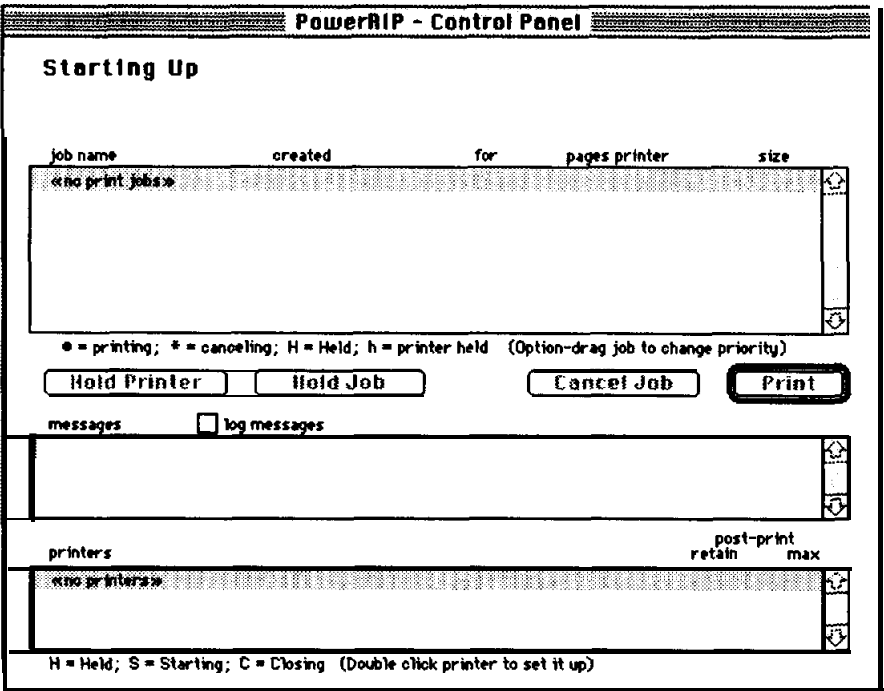
Before launching PowerRIP, connect your EPSON Stylus to the PowerRIP server (the Macintosh you have installed the PowerRIP application on). If you have a Mac network, connect the Stylus to the **Printer** port or Ethernet connection. If you have a stand-alone **Mac**, connect the Stylus to the **Printer** port and choose Remote Only in the **Network Control Panel**. Make sure that the printer is powered on.

If you haven't registered your copy of PowerRIP you will not be able to launch the application. See Registering PowerRIP on page 3.

To launch PowerRIP for the first time, open the **PowerRIP 3.1** folder on your hard drive and double click on the **PowerRIP** icon.



The application will launch and the PowerRIP-Control Panel window will be displayed. This window is always open while PowerRIP is running.



Creating A PowerRIP Printer

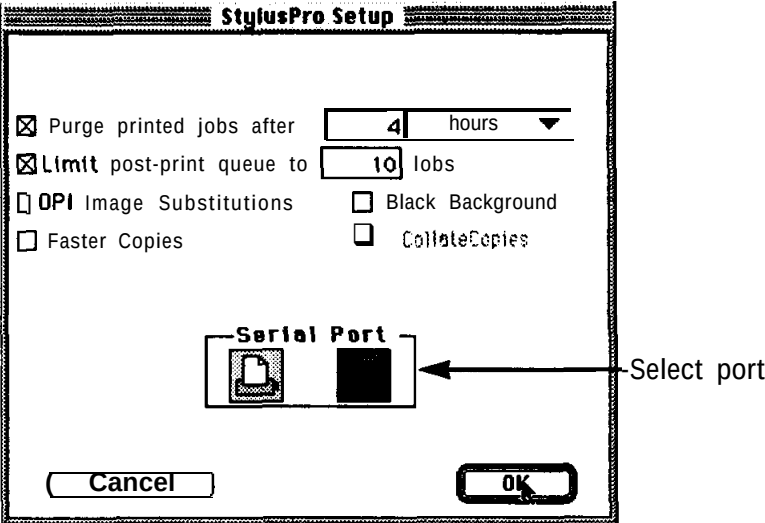
After launching PowerRIP for the first time, you must create a PowerRIP printer. Follow these steps:

- 1. Click on File at the top of the screen.
- 2. Hold down mouse button and select **New Printer** menu command. You will see a listing of EPSON printers supported by this version of PowerRIP For this example we will use the Stylus Pro.. but you should select your particular EPSON printer from this menu.

A **Printer Setup** dialog for the printer you choose is displayed. All EPSON Printer Setup dialogs have the same elements. A sample Printer Setup dialog for the EPSON Stylus Pro is shown below.

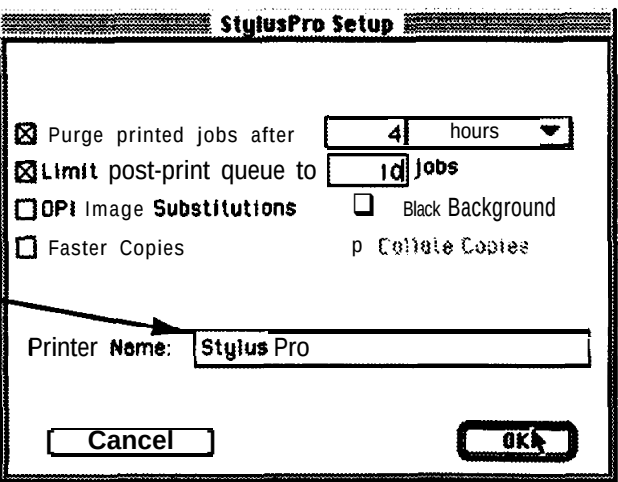
Serial Port
Sample Setup
Customize
according to
your needs

See page 22
for definition
al options

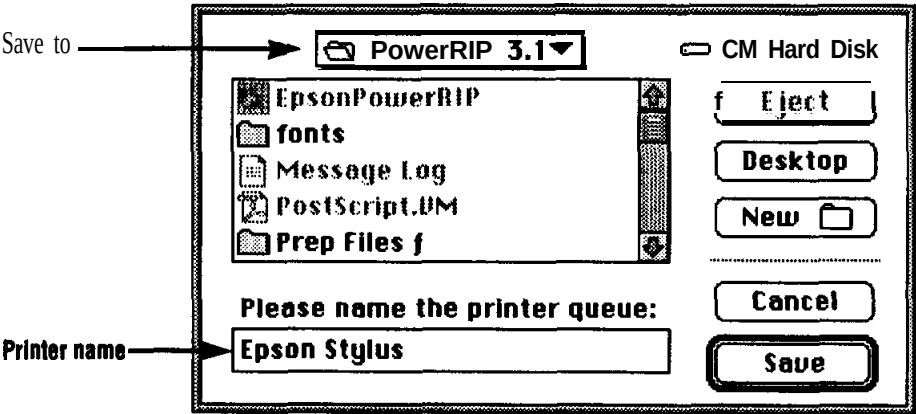


AppleTalk/
Ethernut
Sample setup

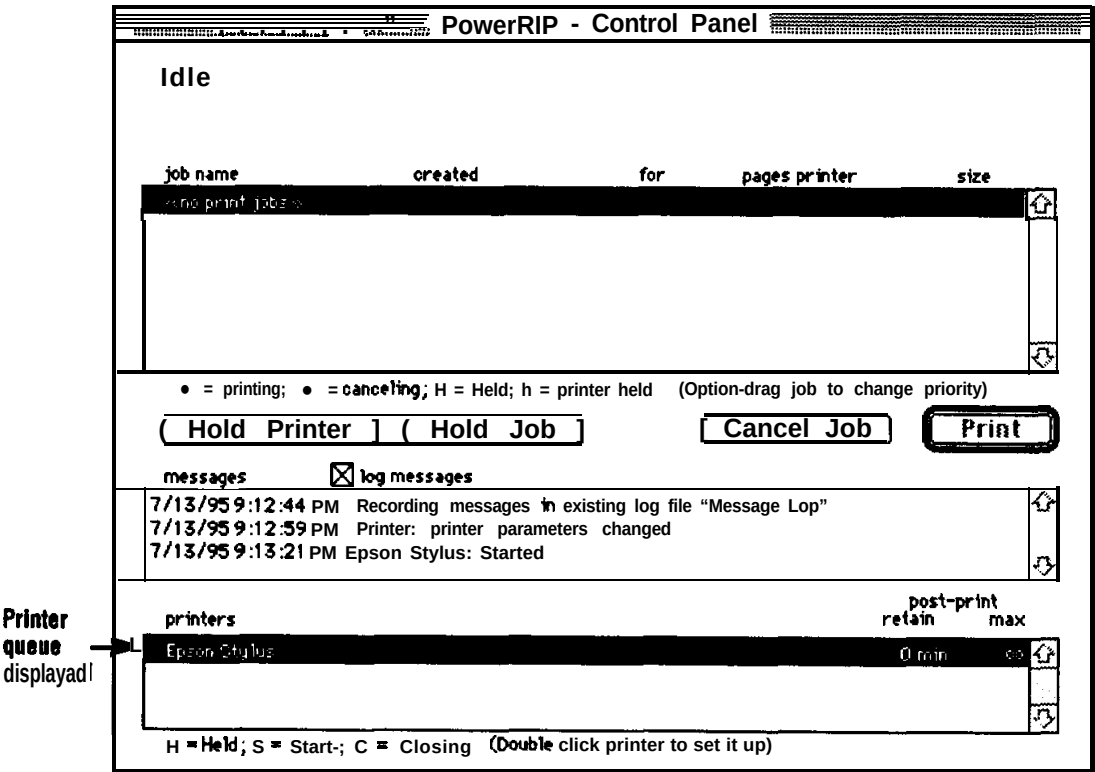
Printer Name
Use the EPSON
Namer to name
your printer and
type that exact
name here.
If the Printer
Name does not
agree, PowerRIP
will not find the
networked printer.



3. Select the options desired for your printer and then click OK. The next menu will ask you to name the printer queue. In this example it was named Epson Stylus.



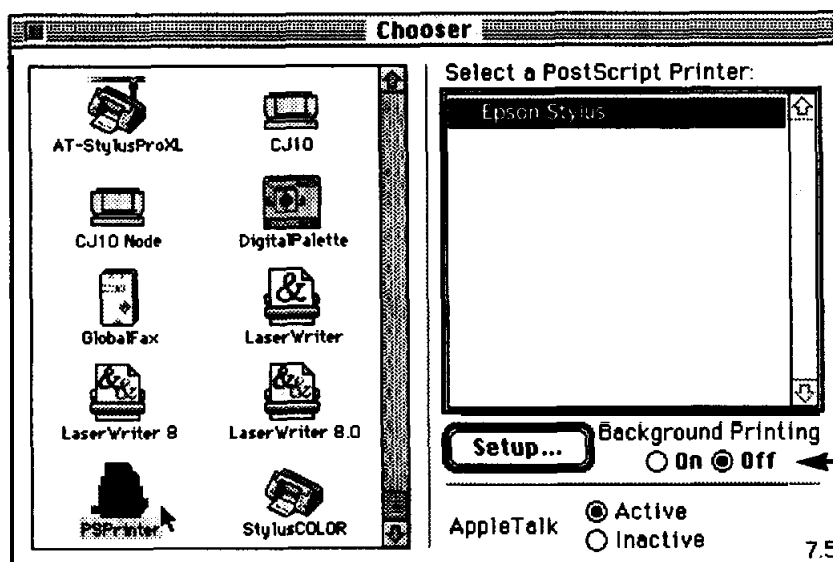
4. Enter the name for your printer and then click **Save**. The PowerRIP Control Panel will display the Epson Stylus.



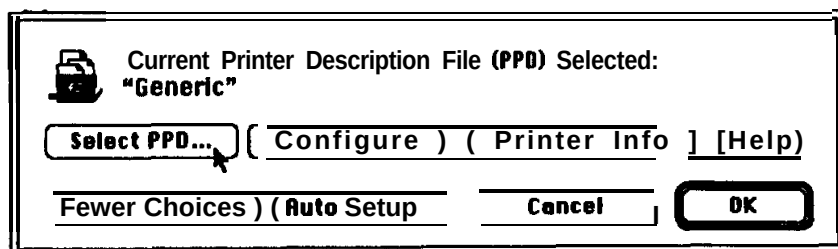
Choosing a PPD

Follow these steps to choose a PPD (PostScript Printer Description):

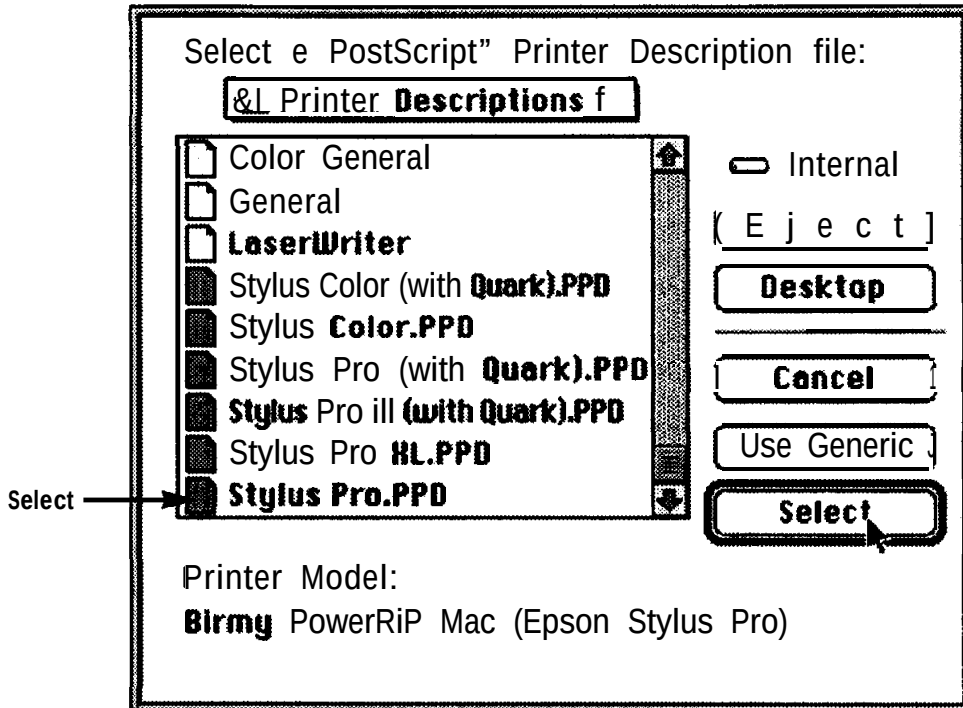
1. Open the Chooser under the Apple symbol at the top of the screen to select the PPD for your particular printer. The PowerRIP Control Panel and a printer must be open in order to see the **device** in the Chooser.
2. Click on the PSPrinter icon in the left column. (The LaserWriter 8 may also be used.) Your printer queue will be shown in the right column.
3. AppleTalk must be active for PowerRIP to function; click on the Active button at bottom of menu.



4. Click on the Setup... button.
5. On the next menu click on Select PPD. (If this menu is not displayed click on More Choices.) Auto Setup is not implemented in this version of PowerRIP; do not use.



A list of available PPDs will be displayed when you click on Select PPD... Scroll down if necessary.



6. In the menu above, the PPD selected is Stylus Pro.PPD. At the bottom of the menu the actual printer name is displayed. Choose the appropriate PPD, and click on Select.
7. **Click** OK on the next menu and close the Chooser by clicking on the box at the upper left of the menu.

You have now created a Print **Queue** and selected the proper PPD for that particular printer.

For a detailed explanation of the PowerRIP controls see the following section.

PowerRIP Controls

Pre-Print Queue List

This view lists ail jobs that have yet to be printed for ail open printers. Each line in the list includes the following:

Job Status	This is a single character in the far left column of the list.	
	Character	Meaning
	H	the job is held
	h	the printer is held
	F	the job failed
	.	the job is currently processing
	*	the job is currently being canceled
	blank	the job is ready to print
Job Name	This is the name of the original job, not necessarily the name of the PostScript file you created.	
Creation Date	This is the date and time that the job was created.	
Creator	This is the name of the user who created the job.	
Page Count	This is the number of pages in the job. If no page count is specified in the job, the page count starts at 1 and increments as each page of the job is processed.	
Printer	This is the name of the PowerRIP printer on which the job will be printed.	
Job Size	This is size of the job, e.g., 743.2K.	
	Jobs that are not held are printed in the order in which they appear in the list. To modify this order, hold down the option key and drag a job up or down to a new position in the list.	

Printer Controls

Buttons for controlling the printer and jobs in the Pre-Print Queue are described below.

Hold Printer	This button is a shortcut for the Hold Printer and Release Printer commands in the Printer menu. When the printer selected in the Printer List is held, this button changes to Release Printer. The currently printing job will not be held. See the full description of this command on page 28.
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Hold Job	This button is a shortcut for the Hold Job and Release Job commands in the Print Job menu. When the job selected in the Pre-Print Queue is held, this button changes to Release Job. See the description of this command on page 29 for more information.
Cancel Job	This button is a shortcut for the Cancel Job command in the Print Job menu. See the description of this command on page 30 for more information.
Print	This button is a shortcut for the Print Job, Pause Printing, and Resume Printing commands in the Print Job menu. When the job selected in the Pre-Print Queue is printing, this button changes to Pause; when the selected job is paused, this button changes to Resume. See the descriptions of these commands on pages 29 and 30 for more information. Double-clicking on a job in the Pre-Print Queue or selecting a job and typing Return or Enter is identical to clicking on this button.

Back Channel Logs

Back Channel logs are files created by PowerRIP for reviewing RIP activities such as printing times, error messages, etc. These message logs can **be** opened in TeachText (or SimpleText). You will **need a word** processor, such as Microsoft Word, to open the logs if you allow them to get too large.

Message Log View	This view displays all informational and error messages generated by PowerRIP since its launch.
Log Messages	This check box is a shortcut for the Log Messages command in the File menu. See the description of this command for more information.
Speak Urgent Messages	This check box is visible only when optional speech recognition software has been installed on the PowerRIP server. When checked, critical warning messages written to the Message Log View are also spoken. This is useful if you wish to be informed of status when not sitting at the PowerRIP server.

Printer List

This view lists all open printers. Each line in the list includes the following:

Note Double-clicking on a printer name is a shortcut for the Setup Printer command in the Printer menu.

Printer Status This is a single character in the far left column of the list.

Character	Meaning
H	the printer is held
S	the printer is starting up
C	the printer is closing
blank	the printer is ready to print

Printer Name This is name of the PowerRIP printer.

OPI Flag If this printer performs OPI substitution, this field contains the string OPI; **otherwise**, this field is blank.

Purge Time This field contains the time after which any printed jobs for this printer are removed, e.g., 3 **days**. If no purge time is specified, this field contains the infinity character, ∞ .

Maximum Jobs This field contains the maximum number of printed jobs to be kept for this printer. If no maximum is specified, this field contains the infinity character, ∞ .

Purge Printed Jobs When checked, jobs are deleted from the Printed Files folder for this PowerRIP printer after the specified number of seconds, minutes, hours, days, or weeks. When not checked, printed jobs remain in the printed files folder until you remove them.

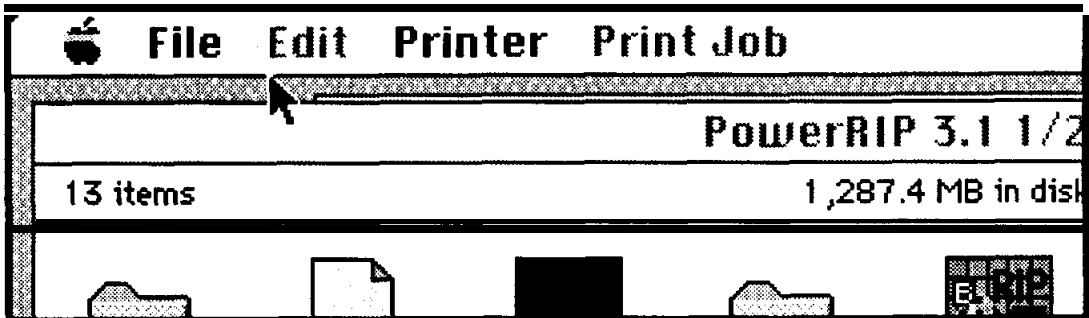
Note: If you change the Purge Time in the Printer Setup to a smaller time frame, previously saved files will be erased.

Limit Post-Print Queue When checked, the oldest jobs are removed from the Printed Files folder for this PowerRIP printer when the specified number of jobs is exceeded. When not checked, there is no maximum number of jobs already printed.

OPI Image Substitution This check box is enabled only when a supported OPI application is running. When checked, OPI substitution will occur for TIFF placement images on a page. When not checked, OPI substitution will not take place.

- Black Background** **When** checked, pages are output with a black background. When unchecked, pages are output with a white background.
- Faster Copies** **When** checked, pages are ripped to a spooled image file on disk before being sent to the imaging device. For multiple copies, pages are only ripped once, then output multiple times. However, the spooled image file uses a large amount of disk space; therefore, you should use this option with caution.
- When unchecked, pages are output directly to the imaging device.
- Collate Copies** This check box is enabled only when Faster Copies is checked. When checked, entire documents are ripped to a spooled image file. Thus, the document is ripped once, then multiple collated copies are output to the imaging device. Since all pages must be written to the spooled image file, this option should be used only when a very large amount of free disk space is available.
- When unchecked, only one page at a time is written to the spooled image file, and multiple copies are printed uncollated.
- Post-Print Queue List** This view lists all jobs that have already been printed but not yet removed.
- Reprint Job** This button is a shortcut for the Reprint Job command in the Print Job menu. See the description of this command on page 29 for more information.
- Double-clicking on a job in the Post-Print Queue or selecting a job and pressing Return or Enter is identical to clicking on this button.
- Reprint On** This button is a shortcut for the Print Job On command in the Print Job menu. See the description of this command on pages 29 and 30 for more information.

MENU COMMAND REFERENCE



This section describes all of the PowerRIP menus and each of the commands in these menus.

Apple Menu

About PowerRIP

This command displays a screen containing the name of this application, its version number, and other important information.

File Menu

New Printer

This menu consists of a single command for each available imaging device. You can create a new PowerRIP printer by choosing an imaging device name.

When this command is selected, a Printer Setup Dialog for the chosen imaging device is displayed. You may change any of the default parameters, then click on OK. For a detailed description of the EPSON Stylus Printer Setup dialogue, see the appendix.

A standard save file dialog is then displayed. Specify a name and location for the **new** PowerRIP printer, then click on Save to complete this operation. You must wait until the printer no longer displays a starting up status, 'S', before using it.

Open Printer

This command displays a standard open file dialog from which you may choose a previously created PowerRIP printer file. A printer file is located in the jobs folder for that printer.

When you create a new PowerRIP printer, a printer file containing the currently selected setup for that printer is created. When changes to a printer are saved, the printer file is updated.

You may also create an alias to the printer file and select the alias in this command.

Like most Macintosh applications, you may also launch PowerRIP and open PowerRIP printers from the Finder by opening a printer file or by dropping a printer file on the PowerRIP application icon.

Close Window

This command closes the front-most PowerRIP window, if it has a close box. If dimmed, the front-most window is either not closable or is modal. In the latter case, you must click on a button to dismiss the dialog.

Save Printer Changes

This command saves changes made to any open PowerRIP printers. All changes made to all open printers are saved. If dimmed, no changes have been made.

The PowerRIP printer files corresponding to the changed printers are updated appropriately.

Log Messages

This command is a toggle. When unchecked, selecting this command causes it to be checked; when checked, selection causes it to be unchecked.

When checked, any message written to the Message Log View is also written to the currently specified log file. If no log file has been specified, then this command displays a standard save file dialog to get a log file name and location.

New Log File

This command closes any open log file and displays a standard save file dialog to get a new log file name and location. If message logging is disabled, it is enabled for the new log file. The previous log file is not deleted.

Log files can be read with any standard text editor. Since these files may get very large, you should monitor their size and delete old messages when necessary.

Extra Font Folder

This command displays a standard folder selection dialog to get the location of an additional folder containing LaserWriter fonts. Normally, only the System Folder and the resources subfolder of the PowerRIP application folder are searched for LaserWriter fonts. This command allows you to specify one additional folder to be searched.

For example, if you are running with Suitcase™ with LaserWriter fonts in folder . . .Resources:Fonts:Printer Fonts:, you must select the Printer Fonts folder with this command.

Quit

This command terminates the PowerRIP application. All open PowerRIP printers are automatically closed.

Edit Menu

Undo

This command reverses the most recent action you took. If dimmed, the most recent action cannot be undone.

After selecting this command, this menu item changes to Redo. Selecting it again performs your most recent action again.

cut

This command cuts any selected text and pastes it in the Clipboard. Jobs cannot be copied; use the Reprint Job and Print Job On commands to move jobs from the Post-Print Queue to the Pre-Print Queue.

COPY

This command cuts any selected text and pastes it onto the Clipboard. Jobs cannot be copied; use the Reprint Job and Print Job On commands to move jobs from the Post-Print Queue to the Pre-Print Queue.

Paste	This command copies any text on the Clipboard to the currently selected text view. If any text is selected, it is replaced at the insertion point.
Clear	This command deletes any selected text. If no text is selected, any character before the insertion point is deleted.

Printer Menu

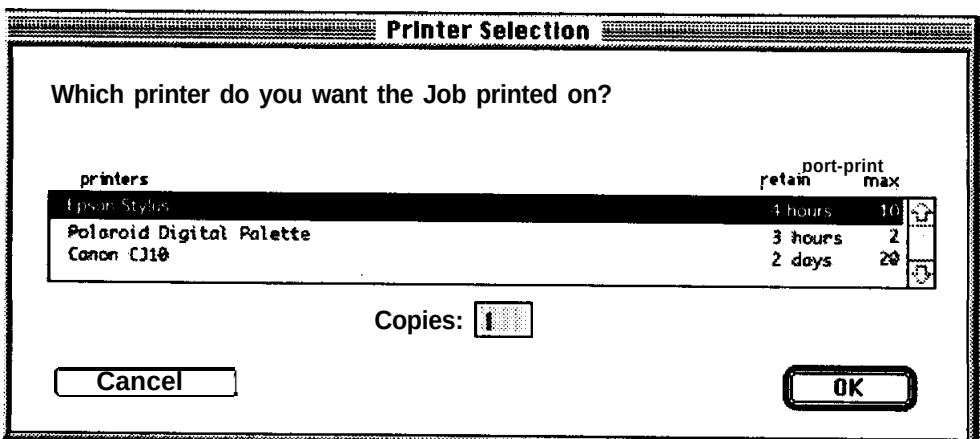
Except where noted, these commands operate on the selected printer in the Printer List.

Hold Printer	This command prevents any jobs for the selected printer from being printed. The printer hold status is indicated by an H to the left of the printer name. The jobs for this printer are marked with an h to their left. However, the currently printing job cannot be held; rather, you must pause or cancel it to stop printing immediately. If dimmed, the selected printer is already held. Any jobs in the Pre-Print Queue for other printers are still printed in order.
Release Printer	This command releases a previously held printer. If dimmed, the selected printer is not held.
Hold All Printers	This command holds all open printers. The selected printer is ignored.
Release All Printers	This command releases any previously held printers. The selected printer is ignored.
Close Printer	This command closes the selected printer. Once closed, the printer can no longer be used by a PowerRIP client.
Setup Printer	This command displays the Printer Setup Dialog for this printer. For a detailed description of the Printer Setup Dialog, see the appendix. Note that changes to printer parameters do not take effect until completion of all ready jobs for that printer.
Show Completed Jobs	This command opens the PowerRIP Completed Jobs Window. If this window is already open, it is made the front-most window.

Print Job Menu

Except where noted, these commands operate on the selected job in the Pre-Print Queue or Post-Print Queue.

- Hold Job** This command prevents the selected job in the Pre-Print Queue from being printed. The job hold status is indicated by an **H** to the left of the job name. The currently printing job cannot be held; rather, you must pause or cancel it to stop printing immediately.
- If dimmed, the selected job is already held.
- Any **jobs** in the Pre-Print **Queue** are still printed in order.
- Release Job** This command unblocks a previously held job. If dimmed, the **selected** job is not held.
- Print Job** This command releases and prints the selected held job in the Pre-Print **Queue**. If dimmed, another job is already printing.
- Remove Job** This command removes the selected job from the queue. To remove a currently printing job, you must first cancel it.
- Reprint Job** This command moves the selected job from the Post-Print **Queue** to the Pre-Print Queue and starts printing it.
- Print Job On** This command displays a dialog **used** to modify information about the selected job. You must specify a PowerRIP printer on which the job should be printed as well as a copy count, then click on OK.



If the selected job is in the Post-Print **Queue**, it is then moved to the Pre-Print **Queue**. If the job is not held, the requested number of copies are then printed to the selected printer.

Cancel Job

This command aborts the currently printing **job**. If dimmed, there is no currently printing job. When a **job** is canceled, it is held and left in the Pre-Print **Queue**.

Pause Printing

This command suspends the currently printing job. If dimmed, there is no currently printing **job**, or the currently printing job has already been paused.

Resume Printing

This command continues the currently printing job. If dimmed, there is no currently printing job or the currently printing **job** is not paused.

Purge Spooled Image

This command deletes any spooled image files for the selected job. If dimmed, there are no spooled image files for the selected job.

Normally, the spooled image files are deleted when the job completes. However, if a job is canceled, the spooled image files are maintained. This avoids having to re-rip the pages.

You may want to use this command to free the disk space allocated for the spooled image file.

Help Menu

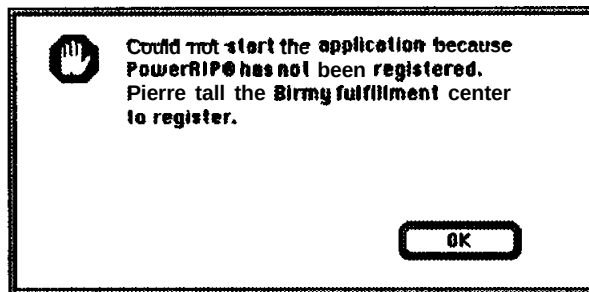
Show Balloons

This command enables and disables Balloon Help. Balloon Help is currently available for all PowerRIP menu items.

TROUBLESHOOTING

This troubleshooting guide lists possible solutions for common problems. Before using this guide, you should check the Message Log View for errors. If no errors are indicated, then use this guide to find a solution to your problem. If you still have a problem after reviewing this section, please call Birmy Customer Support (407) 723-2893. Hours of operation are 9am-8pm EST.

The Following Message Appears When Attempting to Launch PowerRIP



- PowerRIP has not been registered-see Registering PowerRIP on page 3. If you have registered and still get this message:
- Have you loaded PowerRIP on a different Macintosh?
- Have you replaced or changed your System boot-up disk?

See Registering PowerRIP on page 3 to reinstall the BirmyKey. If you have recorded the Fulfillment Response number it is not necessary to call the Birmy Fulfillment Center; type that number in the Response box and click on Register.

- Have you purchased an additional EPSON Stylus that has not been registered? Call Birmy Customer Support to arrange for registration information.

Out of Memory, Memory Low and VM Error Messages

There are other ways to increase your RAM rather than purchasing and installing expensive SIMMs. PowerRIP's performance will be enhanced by the addition of available memory, especially on complex jobs.

- Virtual Memory On. Go to Control Panel under the Apple symbol and select the Memory Control Panel. Click the On button in the Virtual Memory panel.
- Install RAM Doubler. A relatively low-cost Extension from Connectix which effectively doubles the amount of your physical RAM.

- Allocate more memory to PowerRIP. If running, quit PowerRIP. While on the desktop, highlight the PowerRIP icon. Under File, select Get Info. Increase the number in the Preferred size box relative to the amount of available memory you have. Keep in mind that the System Software requires available memory in addition to other applications you may want to have active while PowerRIP is running.

Font Not Found: Using Courier, Findfont Errors

- Are you allowing Font Substitution in your page setups?
- Do you have PostScript compatible printer fonts or just screen fonts?
- Are your fonts available to the system? In order for fonts to be available to the system they must be placed in the Fonts subfolder inside the System Folder. If your font library is too extensive to be placed in the Fonts subfolder, you might consider purchasing Suitcase™ a font handling utility from Fifth Generation Systems, Inc.
- Have you renamed or moved the PowerRIP folder after the original installation? You will have to re-establish the font paths. To do this; open the font subfolder inside the PowerRIP folder and trash the five .upr files (ExtFonts.upr, FonFonts.ups, ResFonts.upr, SysFonts.upr, and XtraFonts.upr.). New .upr files will automatically be created when you restart PowerRIP. If the problem still persists; open the Preferences sub-folder inside the System Folder and trash the PowerRIP™ Preferences. A new preference file will automatically be created when you restart PowerRIP.

Images on Printed Pages are Clipping

- Are you considering the printable image area of your EPSON Stylus? You may have to increase your margins.
- Are you selecting the proper PPD in the Chooser Setup?

Printer Out of Synch - Outputting Repeated Pages of Extraneous Code

- If Cancel Job or Hold Printer have no effect, power down the EPSON Stylus to avoid wasting paper.
- Force Quit the PowerRIP application. While holding down the option and command keys, press the escape key to Force Quit. Your Macintosh will have to be rebooted after doing this to reestablish communication with the printer.

Printer Cannot Be Opened Because Printer Not Available

- Is the imaging device's power on?
- Is the imaging device connected properly to the PowerRIP server? Defective serial cables are a common problem.
- If using EPSON's optional LocalTalk/EtherTalk interface board, have you named the printer correctly in the Printer Setup dialog menu? See page 36 for detailed instructions.

Job in the-Print Queue Not Printed on Imaging Device

- Is the PowerRIP printer ready rather than held, starting up, or closing?
- Is this job set up to print to the correct PowerRIP printer?
- Is the imaging device ready? Are any error indicators lit on the device?
- Is the imaging device powered on?
- Is the imaging device connected properly to the PowerRIP server?

Job Does Not Appear in Pre-Print Queue

- Is the PowerRIP printer for this job open?
- Was job placed in the proper queue? When creating a PostScript file make sure you save it to the printer queue you have set up. If you saved it to some other location you can drag it into the proper print queue.
- Has the PowerRIP printer been selected in the Chooser on the client?
- Are both the PowerRIP server and client on the same enabled network?

Job Prints in Black and White or One or More Colors Are Missing

- Did you specify color output in your application's print dialog?
- Is one or more of the colors in color ink cartridge exhausted?

Job Just Printed Not in Post-Print Queue

- Did you specify a purge time of 0 in the Printer Setup Dialog for the PowerRIP printer?
- Did you specify a maximum job count of 0 in the Printer Setup Dialog for the PowerRIP printer?

Multiple Page Document Stops Outputting Before Job is Complete

- Do you have Faster Copies checked in the Setup Printer dialog menu? When Faster Copies is checked, pages are ripped to a spooled image file on disk before being sent to the printer. This spooled image file uses a large amount of disk space. Uncheck Faster Copies in the Setup Printer menu and try again.

Client Times Out While Sending Job to PowerRIP

- Did you switch to another application on the PowerRIP server? If so, the other application may not give PowerRIP enough time to maintain its connection with the client. Switch back to PowerRIP and try again.
- Is PowerRIP running on a slower Macintosh computer, and are there several clients trying to print to PowerRIP simultaneously? If so, your server may not be fast enough to support a large number of simultaneous transfers. Wait for some of the clients to completely send their jobs to PowerRIP, then try again.

Rendering Stopped or Slower Than Normal

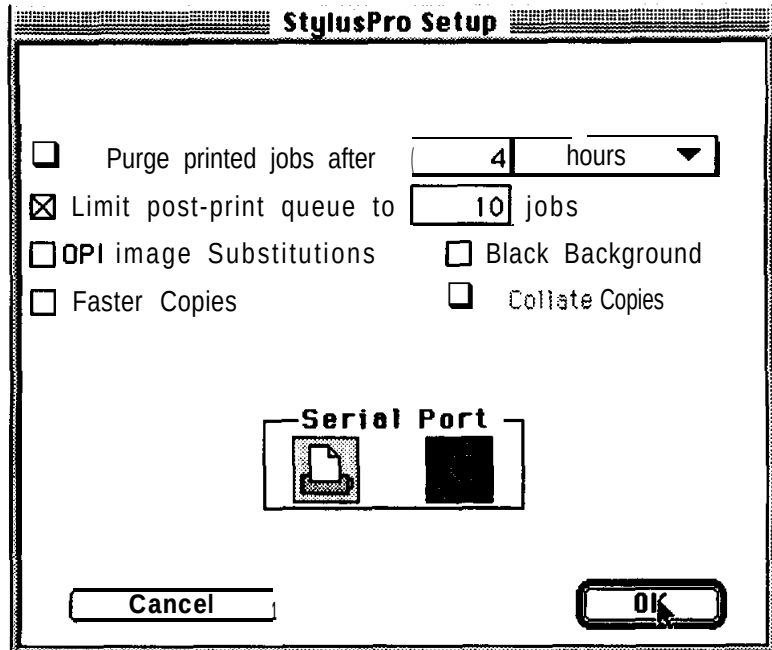
- Are one or more clients sending jobs to PowerRIP? On slower Macintosh computers, transfer operations may require most of the available time; therefore, rendering during transfers slows down considerably.
- Is a dialog open? If so, rendering is suspended until the dialog is closed.

OPI Substitution Not Made

- Is the OPI check box turned on in the Printer Setup Dialog for the PowerRIP printer?
- Have you moved the OPI folder? If so, PowerRIP is unable to locate the folder and, thus, the high-resolution image.

EPSON STYLUS PRINTER SETUP DIALOG

Sample setup
Customize according
to your needs



Purge Printed Jobs

When checked, jobs are deleted from the Printed Files subfolder for this PowerRIP printer after the specified number of seconds, minutes, hours, days, or weeks. When not checked, there is no time limit on jobs already printed.

Limit Post-Print Queue

When checked, the oldest jobs are removed from the Printed Files subfolder for this PowerRIP printer when the specified number of jobs is exceeded. When not checked, there is no maximum number of jobs already printed.

OPI Image Substitution

This check box is enabled only when OH is running. When checked, OPI substitution using certain OPI programs will occur for TIFF placement images on a page. When not checked, OPI substitution will not take place.

Black Background

When checked, pages are output with a black background. When not checked, pages are output with a white background.

Faster Copies

When checked, pages are ripped to a spooled image file on disk before being sent to the imaging device. For multiple copies, pages are only ripped once, then output multiple times. However, the spooled image file uses a large amount of disk space; therefore, you should use this option with caution.

When unchecked, pages are rendered directly to the imaging device.

Serial Port

Use this radio cluster to select whether the EPSON Stylus is connected to the printer port or modem port.

Collate Copies

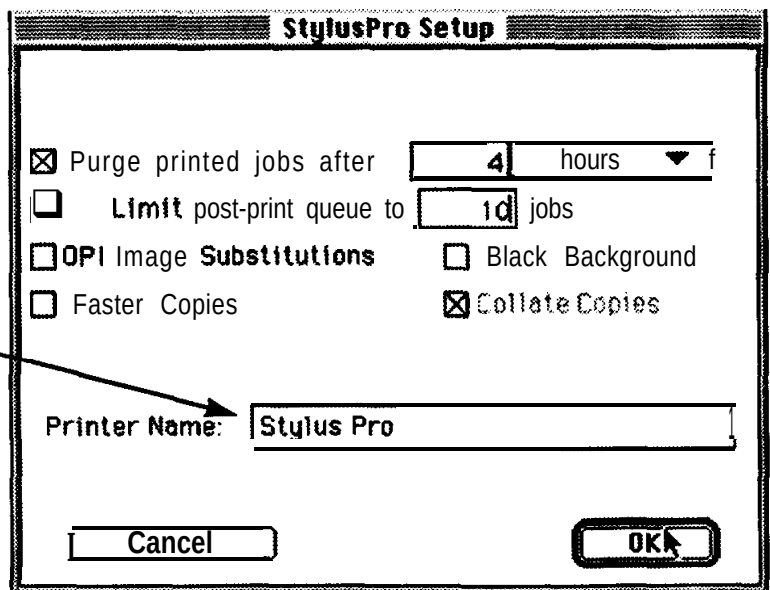
This selection is “grayed out”—all multiple page jobs will be collated if more than one copy is requested.

Printer Setup With Epson's Optional LocalTalk or Ethertalk Interface Board

Printer Name

If you have installed the EPSON optional LocalTalk interface board in your EPSON Stylus and you have selected an AppleTalk printer, the Setup screen will display Printer Name. Refer to the EPSON Stylus User's Guide to assign a name to your printer.

Printer Name: ,
Use the EPSON Namer to name your printer and type that exact name here. If the Printer Name does not agree, PowerRIP will not find the the net-worked printer.



LIST OF TERMS

Several terms having special meaning within the context of this manual are listed below.

CPSI	Configurable PostScript Interpreter. This Adobe Level 2 PostScript interpreter runs on a Macintosh server rather than on a hardware peripheral device. PowerRIP uses this interpreter to render a raster image.
FPU	Floating Point Unit. A chip capable of executing operations with real numbers. The FPU may be built in or available as an add on to the main CPU. [In the Macintosh computer, the FPU is either a separate MC 68881 processor or is built into the main processor (MC 68040 or PPC 601)].
Framing	The process by which a complete raster image of a page is created in memory prior to output to an imaging device. If the available memory is sufficient, then PowerRIP will frame a page. Since disk spooling of bands is unnecessary, framing is usually faster than banding.
Imaging Device	A device capable of printing a raster image on a physical medium, e.g., a printer, imagesetter, digital film recorder, ink jet printer, etc.
Interpreter	A set of software functions to convert PostScript language operators and operands into a raster image. PowerRIP uses the CPSI interpreter.
Job	A file containing PostScript language operators and operands residing in a Jobs folder and listed in either the Pre-Print Queue or the Post-Print Queue.
Jobs Folder	A folder containing a PowerRIP printer file and all jobs for that printer. Jobs to be printed are in the Jobs folder; jobs already printed are in the Printed Files subfolder of the Jobs folder.

LaserWrite+	A printer driver used by an application to create a Post-Script file describing the visible contents of a document.
Message Log View	A scrolling text view in the PowerRIP control panel containing all logged messages.
Network	EtherTalk or AppleTalk cabling and required software to link Macintosh computers to each other. In the case of PowerRIP, to link the clients to the server.
OPI	Open Pre-Press Interface. A standard whereby a high-resolution image is substituted for a low-resolution placement image (or no image) on a page. The substitution is controlled by special TIFF tags. Since the high-resolution image may reside on the server, the long transfer time of the high-resolution image can be avoided.
Post-print Queue	A scrolling list in the PowerRIP Completed Jobs Window containing all jobs already printed for all open PowerRIP printers.
PostScript	An interpretive programming language, developed by Adobe, used to describe the text, graphic, and image content of a document.
PowerRIP Client	A Macintosh computer on which the user runs most applications. The user may print from applications to an imaging device attached to a PowerRIP server.
PowerRIP Completed Jobs Window	A window of the PowerRIP application containing the Post-Print Queue.
PowerRIP Control Panel Window	The main window of the PowerRIP application containing the Pre-Print Queue, the message log view, and the printer list.
PowerRIP Printer	A virtual imaging device representing a physical imaging device with a user-selectable set of characteristics. Each PowerRIP printer has a separate Jobs folder. The names of all open PowerRIP printers appear as LaserWriter devices in the Chooser dialog opened on a PowerRIP client.
PowerRIP Printer File	A file representing a PowerRIP printer residing in the Jobs folder for that printer.

PowerRIP Server	A Macintosh computer running the PowerRIP application.
Pre-Print Queue	A scrolling list in the PowerRIP Control Panel Window containing all jobs yet to be printed for all open PowerRIP printers.
Printer List	A scrolling list in the PowerRIP Control Panel Window containing all open PowerRIP printers.
Printer Setup Dialog	A physical device dependent dialog for selecting characteristics for a PowerRIP printer.
PSPrinter™	A printer driver used by an application to create a PostScript file. This driver is distributed with PowerRIP and may be installed as a substitute for a LaserWriter driver. Within this manual, all references to LaserWriter should be interpreted as references to either LaserWriter or PSpinter.
Raster Image	A bitmap representing an interpreted PostScript page to be output to an imaging device. For each device pixel on the page, there is a corresponding color in the color space appropriate for the imaging device.
Render	The process by which PostScript language operators and operands are interpreted and a raster image is produced.
RIP	Raster Image Processor. An application or device that renders PostScript language inputs and outputs the resulting raster image to an imaging device.
SCSI	Small Computer Systems Interface. A standard communication technology to pass data between a host computer and a peripheral device.
SCSI Address	A physical switch or jumper to designate the address of a SCSI device. Each SCSI device must be addressed with its own unique number from 1 to 6.
TIFF	Tagged Image File Format. This is a standard image file format consisting of labeled fields.